



Antennas

Modules

Components

Systems

Accessories



**2011**  
Product catalogue

[www.giga-concept.fr](http://www.giga-concept.fr)

# About ...

# Giga concept

*Electronic components*



Giga-Concept, supplies manufacturers of wireless network and embedded mobile systems with electronic components and devices, connection technology solutions and the accessories for their products.

With over 15 years' expertise in electronic developments in the domains of radiofrequencies, customised coaxial connector technology, RFID and Frequency Control Products, Giga-Concept assists manufacturers in finding solutions to their specific problems in terms of wired or wireless connection technology, but also during the prototyping phase of their systems.

A direct and exclusive partner to many component suppliers, Giga-Concept offers manufacturers a very high level of reactivity without equal in the market for the identification of suppliers, the specification of components, the sampling and continuity of supply.

Its solutions are used by telecoms and wireless telephony operators, as well as by their contract manufacturers, in the automotive industry, medical equipment, logistics, aeronautic and defence market segments. Created in 2003, Giga-Concept employs 12 people and had a turnover of 4 millions in 2010.

## COAXIAL CONNECTORS



### SMA Connector

### Code-01

Frequency	DC-18 GHz
Impedance	50 $\Omega$
Insertion Loss	0.2 dB Max
VSWR	1.3:1 max
Available Type	Female, Male, Straight, Right angle, Bulkhead, Reverse polarity,...
Mounting	Crimp, solder, PCB, Flange Mont



### FME Connector

### Code-12

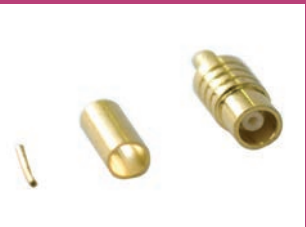
Frequency	DC-2 GHz
Impedance	50 $\Omega$
Insertion Loss	0.2 dB Max
VSWR	1.3:1 max
Available Type	Female, Male, Straight, Bulkhead,
Mounting	Crimp, Bulkhead



### MCX Connector

### Code-03

Frequency	DC-6 GHz
Impedance	50 $\Omega$
VSWR	1.3:1 max (Straight), 1.5:1 max (Right Angle)
Available Type	Crimp, solder, socket and PCB, Edge card, SMT
Mounting	Crimp, solder, socket and PCB



### MMCX Connector

### Code-04

Frequency	DC-6 GHz
Impedance	50 $\Omega$
VSWR	1.3:1 max (Straight), 1.5:1 max (Right Angle)
Available Type	Crimp, solder, socket and PCB, Edge card, SMT
Mounting	Crimp, solder, socket and PCB



### SMB Connector

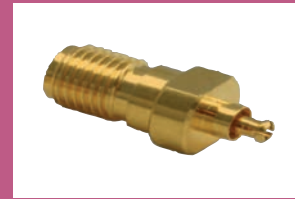
### Code-02

Frequency	DC-4 GHz
Impedance	50 $\Omega$
VSWR	1.3:1 max (Straight), 1.5:1 max (Right Angle)
Insertion Loss	0.4dB (Straight) 0.6 dB (Right Angle)
Available Type	Female, Male, Straight, Right Angle, Bulkhead
Mounting	Crimp, solder, Bulkhead, PCB

# MICRO-CONNECTORS

## MC CARD Connector Code-17

Frequency	DC-6 GHz
Impedance	50 $\Omega$
Available Type	Female, Male, Straight, Right Angle
Mounting	Crimp, PCB,



## N Connector Code-05

Frequency	DC-11 GHz
Impedance	50 $\Omega$
VSWR	1.3:1 max
Insertion Loss	0.2 dB Max
Available Type	Female, Male, Straight, Right Angle, Bulkhead
Mounting	Crimp, clamp, panel mount,



## FAKRA Connector Code-25 (GPS) Code-26 (GSM)

Frequency	DC-2 GHz
Impedance	50 $\Omega$
Insertion Loss	0.2 dB Max
VSWR	1.3:1 max
Available Type	Female, Male, Straight, Bulkhead
Mounting	Crimp, Bulkhead



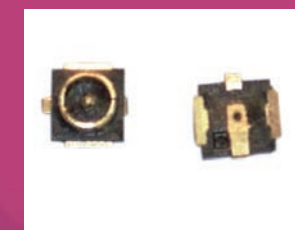
## Micro Connector

Frequency	Up to 6 GHz
Impedance	50 $\Omega$
VSWR	1.3 dB max.
Withstanding voltage	AC 300 Vrms
Durability	50 Cycles
Compatibility	MCA: FSC (Murata) MCB: U.FL (Hirose) / MHF (I-PEX) MCB2 Low profile : U.FL(V) (Hirose) MCD : W.FL (Hirose) MCF: GSC (Murata) MCG: H.FL (Hirose)



## MCBG Socket

Frequency	Up to 6 GHz
Impedance	50 $\Omega$
VSWR	1.3 dB max.
Withstanding voltage	AC 300 Vrms
Durability	50 Cycles
Mounting	Crimp, clamp, panel mount,



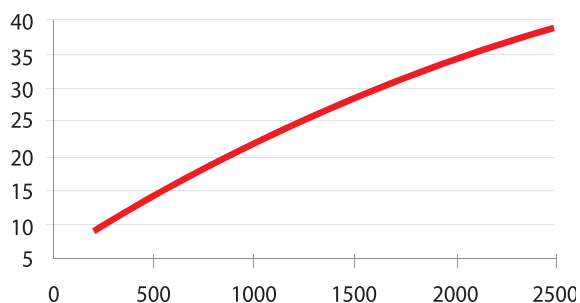
## COAXIAL CABLE

### Série S214

Min Bend Radius (mm)	50
Center conductor	Copper silver CuAg 7x0.75
Center conductor diameter (mm)	7.25
Dielectric	Solid PE
Overall diameter (mm)	10.80
Shielding Effectiveness (dB min)	-80
Impedance ( $\Omega$ )	50

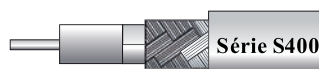


losses/100meters

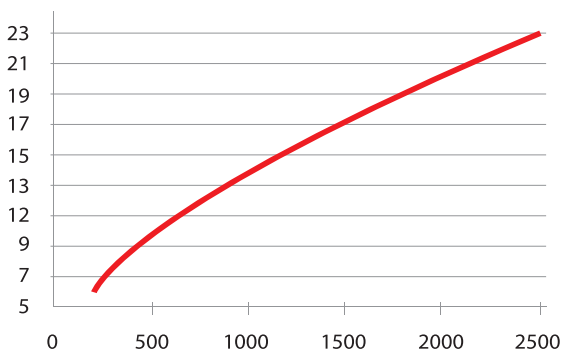


### Série S400

Min Bend Radius (mm)	25.4
Center conductor	Solid bare copper clad aluminium
Center conductor diameter (mm)	2.74
Dielectric	Foam PE
Overall diameter (mm)	10.3
Shielding Effectiveness (dB min)	-90
Impedance ( $\Omega$ )	50

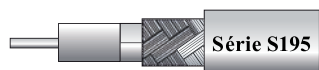


losses/100meters

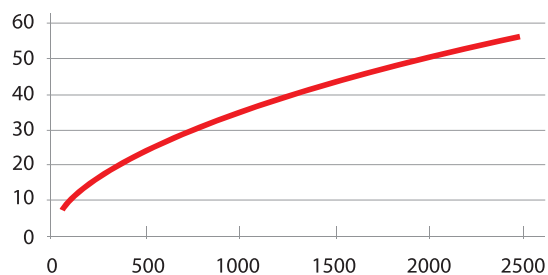


### Série S195

Min Bend Radius (mm)	12.7
Center conductor	Solid bare copper
Center conductor diameter (mm)	0.94
Dielectric	Solid PE
Overall diameter	4.95
Shielding Effectiveness (dB min)	-90
Impedance ( $\Omega$ )	50

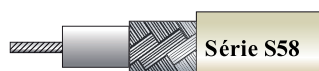


losses/100meters

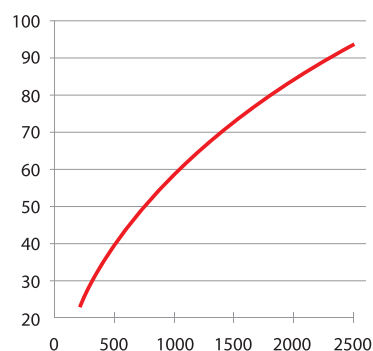


### Série S58

Min Bend Radius	15
Center conductor	Copper single braid
Center conductor diameter (mm)	0.90
Dielectric	Solid PE
Overall diameter (mm)	4.95
Shielding Effectiveness (dB min)	-60
Impedance ( $\Omega$ )	50



losses/100meters



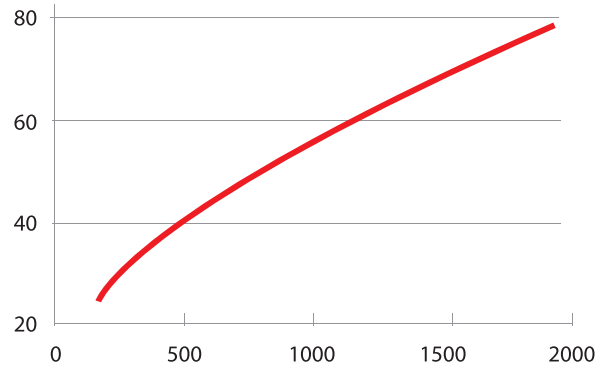
# COAXIAL CABLE

## Série S174LL

Min Bend Radius (mm)	15x outer diameter
Center conductor	Stranded E-Cu wire, bare, 7x0.
Center conductor diameter (mm)	0.81
Dielectric	Solid PE
Overall diameter (mm)	3.20
Shielding Effectiveness (dB min)	-60
Impedance ( $\Omega$ )	50

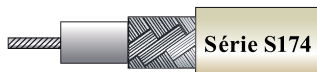


losses/100meters

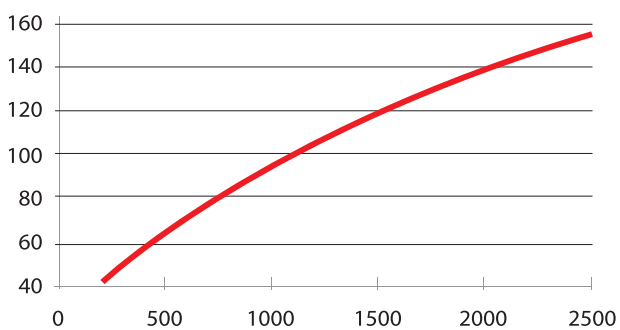


## Série S174

Min Bend Radius (mm)	20
Center conductor	Solid bare copper
Center conductor diameter (mm)	0.48
Dielectric	Solid PE
Overall diameter (mm)	2.80
Shielding Effectiveness (dB min)	-60
Impedance ( $\Omega$ )	50

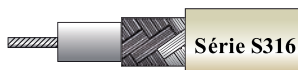


losses/100meters

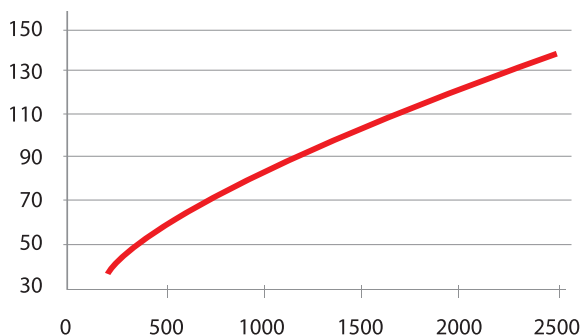


## Série S316

Min Bend Radius	15
Center conductor	Silver Plated copper 7x0.17
Center conductor diameter (mm)	0.51
Dielectric	Solid PTFE
Overall diameter (mm)	2.52
Shielding Effectiveness (dB min)	-60
Impedance ( $\Omega$ )	50

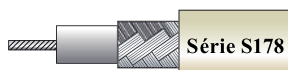


losses/100meters

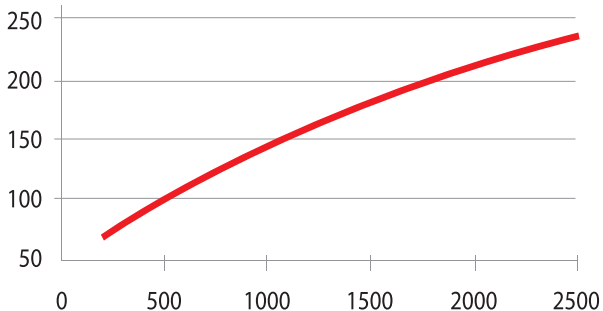


## Série S178

Min Bend Radius	20
Center conductor	Solid copper silver
Center conductor diameter (mm)	0.84
Dielectric	Solid PTFE
Overall diameter (mm)	1.80
Shielding Effectiveness (dB min)	-60
Impedance ( $\Omega$ )	50



losses/100meters

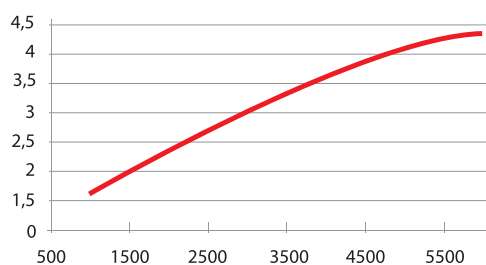


## MINIATURE CABLE

### Série #54

Center conductor	Silver plated copper wire	Impedance ( $\Omega$ )	50
Center conductor diameter (mm) :	0.305	Capacitance (pF/m)	96
Dielectric/Total Dia (mm)	Solid FEP/0.88	Voltage rating (Vrms Max.)	300
Overall diameter (mm)	1.33		

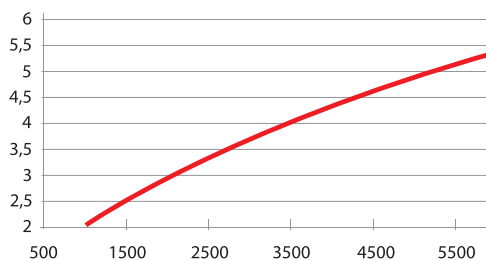
losses/meter



### Série #59

Center conductor	Silver plated copper wire	Impedance ( $\Omega$ )	50
Center conductor diameter (mm)	0.24	Capacitance (pF/m)	97
Dielectric/Total Dia (mm)	Solid FEP/0.68	Voltage rating (Vrms Max.)	300
Overall diameter (mm)	1.13		

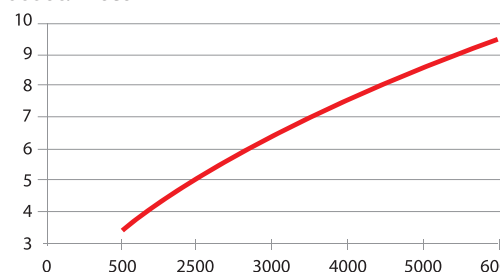
losses/meter



### Série #68

Center conductor	Silver plated copper wire	Impedance ( $\Omega$ )	50
Center conductor diameter (mm)	0.15	Capacitance (pF/m)	96
Dielectric/Total Dia.	Solid PFA/0.4	Voltage rating (Vrms Max.)	300
Overall diameter (mm)	0.81		

losses/meter



# SMT FILTERS



## CERAMICS FILTERS

Center frequency (MHz):	1575
Bandwidth (MHz) :	30
Insertion loss (dB)	1.5
Return loss	15 dB
Attenuation	35 dB min @ 1450 MHz
	30 dB min @ 1720 MHz
POWER Watts Max	3
Size (mm)	8.6 x 7.84 x 3.9

Custom requests available from 600 to 6 GHz



## Customs requests available from 600 to 6 GHz

CERAMICS RESONATORS	
from 400 MHz to 4 GHz	
High dielectric constant	
High Quality factor	
Er = 89 / 38 / 21	
Size : 2 x 2 mm / 4 x 4 mm / 8 x 8 mm	



## GPS 1575.42 MHz SAW FILTERS

Center frequency (MHz):	1575.42
Bandwidth (MHz) :	+/- 1 MHz
Insertion loss (dB) Max	3.5
VSWR typ	1.3
Attenuation	40 dB min @ 1475.42 MHz
	62 dB typ @ 1675.42 MHz
POWER (dBm) Max	10
Size (mm)	2.0 x 2.5 x 1.0



## SAW FILTER ISM BAND

Center frequency (MHz):	868
Bandwidth (MHz) :	26
Insertion loss (dB) typ	1.7
Ripple (dB) typ	1.0
VSWR typ	1.3
Attenuation	23 dB min @ 765 MHz
	24.5 dB typ @ 1065 MHz
POWER (dBm) Max	10
Size (mm)	3.0 x 3.0

## CAVITY FILTERS



### WIMAX FILTER - 40 WATTS

Center frequency (MHz)	3400 to 3600
Bandwidth (MHz)	+/- 3.5
Insertion loss (dB)	2.5
VSWR	1.5
Attenuation	20 dB min @ +/- 8 MHz
POWER	40 WATTS
Size (mm) Max	77 x 77 x 40
Connectors	N or SMA



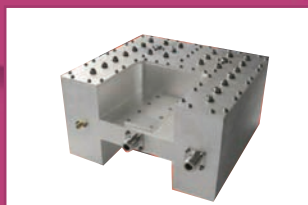
### DVBT FILTER - 1 KW - TUNABLE

Center frequency (MHz)	470 to 862
Bandwidth (MHz)	6 to 8
Insertion loss (dB)	0.33 dB @ 858 MHz
Return loss (dB) typ	26
Attenuation	Critical mask (34 dB min @ +/-12 MHz)
POWER (kW)	1
Size (mm) Max	240 x 300 x 220 (Height)
Connectors	EIA 7/8



### TRIPLEXER CO-SITTING APPLICATION

Center frequency (MHz)	GSM900 / DCS1800 / UMTS2170
Bandwidth (MHz)	FULL BAND
Insertion loss (dB) Max	0.3
Return loss (dB) Min	18
Attenuation (dB) Min	60 (isolation)
POWER	240W (GSM900) / 240W (DCS1800) / 60W(UMTS)
Size (mm) Max	202 x 167 x 52
Connectors	EIA 7/8



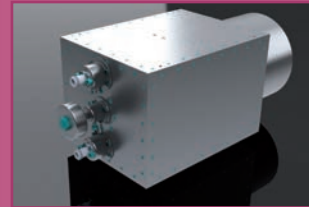
### TETRA DUPLEXER - TUNABLE

Center frequency (MHz)	TX Band 390 to 470 RX Band 380 to 460
Bandwidth (MHz)	5
Insertion loss (dB) Max	1.3
Return loss (dB) Min	18
Attenuation (dB) Min	78 (isolation)
POWER	4x50 WATTS TETRA Modulated / 6 kW peak
Size (mm)	482.6 x 239.0 x 132.5
Connectors	N Female

# TUNABLE CAVITY FILTERS

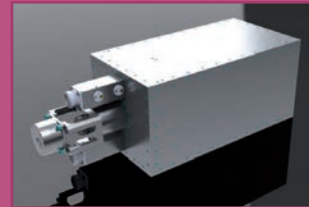
## TUNABLE VHF BAND PASS FILTER (118-156 MHz)

Tunable frequency range :	118 - 156 MHz
IN / OUT impedance :	50 Ohm
Insertion loss :	adjustable from 0,5 to 2 dB max
IN / OUT connectors :	N Female
Return loss :	18 dB min at 1 dB of ins. loss
Surface finishing :	Matt black epoxy paint
Attenuation :	14 dB min at $F_o \pm 500$ KHz
RF power handling :	100 Wcw - 400 Wpep at 2 dB loss
IMD3 (@2x47 dBm carriers) :	-130 dBc max
Operating temperature range :	- 20 / + 60 °C
Thermal stability :	3 ppm/°C max (from -10 to +55 °C - RH=40%)
Operating relative humidity :	10% to 90% non condensing
Size :	<b>368</b> x 195 x 173 mm

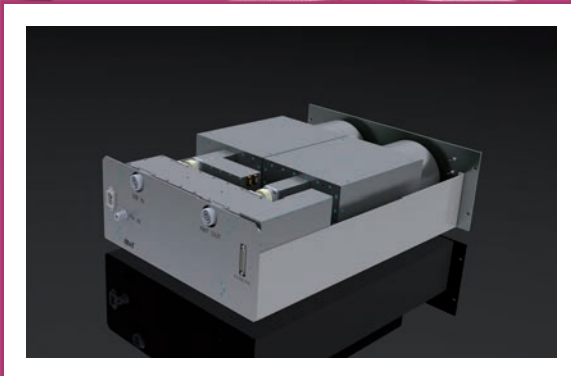


## TUNABLE VHF BAND PASS FILTER ELECTRICAL

Tunable frequency range :	118 - 156 MHz
IN / OUT impedance :	50 Ohm
Insertion loss :	adjustable from 0,5 to 2 dB max
IN / OUT connectors :	N Female
Return loss :	18 dB min at 1 dB of ins. loss
Surface finishing :	Matt black epoxy paint
Attenuation :	14 dB min at $F_o \pm 500$ KHz
RF power handling :	100 Wcw - 400 Wpep at 2 dB loss
IMD3 (@2x47 dBm carriers) :	-130 dBc max
Operating temperature range :	- 20 / + 60 °C
Thermal stability :	3 ppm/°C max (from -10 to +55 °C - RH=40%)
Operating relative humidity :	10% to 90% non condensing
Size :	<b>388</b> x 195 x 173 mm
Speed	12 sec for full range



Other frequency available : 225 - 400 MHz



Complete system integration  
 Marine  
 Tactical  
 ATC (air traffic control)



**Giga**  **concept**  
*Electronic components*

Z.I. Fontaine de Jouvence - 4, rue Angiboust - 91460 Marcoussis - France

Tél. : +33 (0)1 69 63 34 34 - Fax : +33 (0)1 64 49 89 78

[www.giga-concept.fr](http://www.giga-concept.fr) - [contact@giga-concept.fr](mailto:contact@giga-concept.fr)